



SEQUENCE LISTING

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<120> T-m Leveling Methods

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<140> US 10/032,307

<141> 2001-12-21

<150> US 09/054,830

<151> 1998-04-03

<150> US 09/054,832

<151> 1998-04-03

<150> US 09/431,385

<151> 1999-11-01

<150> US 60/186,046

<151> 2000-03-01

<150> US 09/640,953

<151> 2000-08-16

<150> US 09/724,959

<151> 2000-11-28

<150> US 09/796,988

<151> 2001-02-28

<160> 90

<170> PatentIn Ver. 2.1

<210> 1

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:minor groove
binder (MGB)-modified FAM probe

<220>

<221> modified_base

<222> (1)

<223> n = c modified by FAM

<220>
 <221> modified_base
 <222> (18)
 <223> n = t modified by a quencher (Q) and minor groove
 binder (MGB)

 <400> 1
 nttttgacct aacaaatn 18

 <210> 2
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:minor groove
 binder (MGB)-modified FAM probe complement

 <400> 2
 atgttaattt gttagggtcaa aagaaaaatc tttaga 36

 <210> 3
 <211> 36
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 <213> Artificial Sequence

 <220>
 <223> Description of Artificial
 Sequence:4-amino-3-(prop-1-ynyl)pyrazolo[3,4-d]pyrimidine
 (PPPA) analog of adenosine and pyrazolo[3,4-d]pyrimidine
 analog of guanosine (PPG) containing minor groove binder
 (MGB)-modified FAM probe

 <400> 3
 tacaattaaa caatccagtt ttcttttttag aaatct 36

 <210> 4
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial
 Sequence:4-amino-3-(prop-1-ynyl)pyrazolo[3,4-d]pyrimidine
 (PPPA) analog of adenosine and pyrazolo[3,4-d]pyrimidine
 guanosine (PPG) containing minor groove binder
 (MGB)-modified FAM probe complement

 <220>
 <221> modified_base
 <222> (1)
 <223> n = pyrazolo[3,4-d]pyrimidine analog of guanosine
 modified by FAM

 <220>
 <221> modified_base
 <222> (5)..(6)
 <223> n = pyrazolo[3,4-d]pyrimidine analog of guanosine

<220>
 <221> modified_base
 <222> (9)..(11)
 <223> n =
 4-amino-3-(prop-1-ynyl)pyrazolo[3,4-d]pyrimidine
 analog of adenosine

<220>
 <221> modified_base
 <222> (15)
 <223> n = a modified by a quencher (Q) and minor groove
 binder (MGB)

<400> 4
 nttanntcnn nagan

15

<210> 5
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:TM-Invader
 probe substituted with six
 pyrazolo[3,4-d]pyrimidine analogs of guanosine

<220>
 <221> modified_base
 <222> (2)..(7)
 <223> n = pyrazolo[3,4-d]pyrimidine analog of guanosine

<400> 5
 tnnnnnnncct tggcggctac g

21

<210> 6
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:TM-Invader
 probe substituted with one
 pyrazolo[3,4-d]pyrimidine analog of guanosine

<220>
 <221> modified_base
 <222> (5)
 <223> n = pyrazolo[3,4-d]pyrimidine analog of guanosine

<400> 6
 tgggnggcct tggcggctac g

21

<210> 7
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:TM-Invader
 probe

 <400> 7
 tggggggcct tggcggctac g 21

 <210> 8
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:complementary
 target 1

 <400> 8
 tcggcggcgt 10

 <210> 9
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:complementary
 target 2

 <400> 9
 acagcggcgt 10

 <210> 10
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:complementary
 target 3

 <400> 10
 acagcgacgt 10

 <210> 11
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:complementary
 target 4

 <400> 11
 tcagtgcga 10

<210> 12
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:complementary
 target 5

 <400> 12
 tcagtgacaa 10

 <210> 13
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:complementary
 target 6

 <400> 13
 tcaatgacag 10

 <210> 14
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:complementary
 target 7

 <400> 14
 acaatgataa 10

 <210> 15
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:complementary
 target 8

 <400> 15
 ccaataataa 10

 <210> 16
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:complementary
 target 9

<400> 16 gtaataataa	10
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<400> 17 aaagttatgt ctacttacag aaa	23
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<400> 19 aaagtcatgt ctacttacag aaa	23
<210> 20 <211> 23 <212> DNA <213> Artificial Sequence	
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<400> 20 aaagttgtgt ctacttacag aaa	23
<210> 21 <211> 23 <212> DNA <213> Artificial Sequence	

<220>
 <223> Description of Artificial Sequence:probe sequence
 5

<400> 21
 aaagttacgt ctacttacag aaa 23

<210> 22
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 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:probe sequence
 6

<400> 22
 aaagttatat ctacttacag aaa 23

<210> 23
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:probe sequence
 7

<400> 23
 aaagttatgc ctacttacag aaa 23

<210> 24
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:probe sequence
 8

<400> 24
 aaagttatgt ttacttacag aaa 23

<210> 25
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:probe sequence
 9

<400> 25
 aaagttatgt ccacttacag aaa 23

<210> 26
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence
 10

 <400> 26
 aaagttatgt ctgcttacag aaa 23

 <210> 27
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence
 11

 <400> 27
 aaagttatgt ctatttacag aaa 23

 <210> 28
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence
 12

 <400> 28
 aaagttatgt ctacctacag aaa 23

 <210> 29
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence
 13

 <400> 29
 aaagttatgt ctactcacag aaa 23

 <210> 30
 <211> 23
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence
 14

<400> 30
 aaagttatgt ctacttgacg aaa 23

<210> 31
 <211> 15
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target sequence
 1

<400> 31
 gtaagtagac ataac 15

<210> 32
 <211> 15
 <212> DNA
 <213> Artificial Sequence

<220>
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 2

<220>
 <221> modified_base
 <222> (1)..(15)
 <223> n = 4-amino-3-(prop-1-ynyl)pyrazolo[3,4-d]pyrimidine
 analog of adenosine

<400> 32
 gtnngtngnc ntnc 15

<210> 33
 <211> 15
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target sequence
 3

<220>
 <221> modified_base
 <222> (15)
 <223> n = c modified by minor groove binder (MGB)

<400> 33
 gtaagtagac ataan 15

<210> 34
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:target sequence
 4

<220>
 <221> modified_base
 <222> (1)..(14)
 <223> n = 4-amino-3-(prop-1-ynyl)pyrazolo[3,4-d]pyrimidine
 analog of adenosine

<220>
 <221> modified_base
 <222> (15)
 <223> n = c modified by minor groove binder (MGB)

<400> 34
 gttnngtngnc nttnnn 15

<210> 35
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:duplex
 complement match

<400> 35
 agctgtgact 10

<210> 36
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:duplex
 complement 1

<400> 36
 agctgtgact 10

<210> 37
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:duplex
 complement 2

<400> 37
 agcggtagt 10

<210> 38
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:duplex
 complement 3

 <400> 38
 agccgtgact 10

 <210> 39
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:duplex
 complement 4

 <400> 39
 agcagagact 10

 <210> 40
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:duplex
 complement 5

 <400> 40
 agcagggact 10

 <210> 41
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:duplex
 complement 6

 <400> 41
 agcagcgact 10

 <210> 42
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:duplex
 complement 7

<400> 42 agcaatgact	10
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<210> 44 <211> 10 <212> DNA <213> Artificial Sequence	
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<210> 45 <211> 10 <212> DNA <213> Artificial Sequence	
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<400> 45 aataataacc	10
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<400> 46 aattataacc	10
<210> 47 <211> 10 <212> DNA <213> Artificial Sequence	

<220>
 <223> Description of Artificial Sequence:duplex
 complement 11

 <400> 47
 aatgataacc 10

 <210> 48
 <211> 10
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:duplex
 complement 12

 <400> 48
 aatcataacc 10

 <210> 49
 <211> 10
 <212> DNA
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 <223> Description of Artificial Sequence:duplex
 complement 13

 <400> 49
 aataaaaacc 10

 <210> 50
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 <220>
 <223> Description of Artificial Sequence:duplex
 complement 14

 <400> 50
 aataagaacc 10

 <210> 51
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 <220>
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 complement 15

 <400> 51
 aataacaacc 10

<210> 52
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 <220>
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 extension template

 <400> 52
 aaccactctg tccta 15

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 <223> Description of Artificial Sequence:probe sequence

 <400> 53
 ctgtaagtag atataac 17

<210> 54
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 <220>
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 <400> 54
 ggcaagatat atag 14

<210> 55
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 <400> 55
 gtgacgcaga ttcc 14

<210> 56
 <211> 15
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 <400> 56
 gtaagtagac ataac 15

<210> 57
 <211> 14
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 <220>
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 <400> 57
 cagggagctt tgga 14

<210> 58
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 <400> 58
 cactcgtgaa gctg 14

<210> 59
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 <400> 59
 gtaagtaggc ataac 15

<210> 60
 <211> 14
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 60
 ccggatgtag gatc 14

<210> 61
 <211> 14
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 <220>
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 <400> 61
 gattacctgg attt 14

<210> 62
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 <213> Artificial Sequence

 <220>
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 <400> 62
 ccgtcaatgg tcac 14

 <210> 63
 <211> 12
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 63
 cagcacgtag cc 12

 <210> 64
 <211> 14
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 64
 cggctacgtg ctgg 14

 <210> 65
 <211> 14
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 65
 cggctacatg ctgg 14

 <210> 66
 <211> 12
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 66
 ctaaactctgc cg 12

<210> 67
 <211> 15
 <212> DNA
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 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 67
 tctggatgat gggca 15

<210> 68
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 68
 gttcatgggt gtaat 15

<210> 69
 <211> 14
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 69
 cggaggtagg atca 14

<210> 70
 <211> 13
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 70
 ccacccgcct cag 13

<210> 71
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 71
 cacaggagtg gttgg 15

<210> 72
 <211> 14
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 72
 cggaccagtg cgtg 14

<210> 73
 <211> 14
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 73
 tcggaccagt gcgt 14

<210> 74
 <211> 14
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 74
 aacgggggtac gata 14

<210> 75
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 75
 cagttgagat tctaagac 18

<210> 76
 <211> 12
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 76
 aggggcgtct tg 12

<210> 77
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 77
 gtaagtaggc atagc 15

<210> 78
 <211> 13
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 78
 tgcccagccc cag 13

<210> 79
 <211> 14
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 79
 ccaacactcg tgaa 14

<210> 80
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 80
 gtaagtagac acagc 15

<210> 81
 <211> 12
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 81
 tcggaccagt gc 12

<210> 82
 <211> 13
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 82
 cgatcacgct ggc 13

<210> 83
 <211> 13
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 83
 gtcctggggg tgg 13

<210> 84
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 84
 gtaagtaggt gtagc 15

<210> 85
 <211> 17
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 85
 ggttgtacgg gttagc 17

<210> 86
 <211> 14
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 86
 ggaccagtgc gtga 14

<210> 87
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 87
 gtaagtagac gcagc 15

 <210> 88
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 88
 gtaagtaggc gcagc 15

 <210> 89
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 89
 gtaagtaggc gcggc 15

 <210> 90
 <211> 12
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:probe sequence

 <400> 90
 gggtcccgag cg 12